

## CLAIM AMENDMENTS

1. (Currently Amended) A method ~~of determining the inflow profile of an injection usable with a~~ wellbore, comprising:

stopping injection of fluid into a formation, the formation intersected by a wellbore having ~~[[a]]~~ an uphole section uphole of the formation and a formation section within the formation;

observing temperature at least partially along the uphole section of the wellbore and at least partially along the formation section of the wellbore, while injection of fluid is stopped;

re-starting injection of injecting fluid into the formation in response to observation of a based on an observed temperature peak in the uphole section ~~region~~ of the wellbore ~~proximate the uphole side of the formation~~; and

~~monitoring~~ observing, while re-starting injection of injecting fluid is occurring, the movement of the peaked temperature fluid as it moves from the ~~region proximate the uphole section of the wellbore side of the formation~~ and across ~~further along~~ the formation section of the wellbore; and

determining an inflow profile of the formation based on the movement of the peaked temperature fluid that is observed while re-starting injection of fluid is occurring.

2. (Previously Presented) The method of claim 1, wherein the temperature observing is performed using a distributed temperature sensing system.

3. (Currently Amended) The method of claim 1, wherein determining the inflow profile comprises ~~further comprising~~ computing the velocity of the peaked temperature fluid in the formation section of the wellbore.

4. (Previously Presented) The method of claim 3, further comprising plotting the velocity of the peaked temperature fluid as a function of depth in the formation section of the wellbore.

5. (Original) The method of claim 3, wherein the inflow profile indicates the percentage of fluid injected along the length of the formation section of the wellbore.
6. (Currently Amended) The method of claim 3, wherein determining the inflow profile further comprises ~~comprising~~:
- measuring the injection rate of fluid at the surface; and
  - calculating the inflow profile in quantitative form.
7. (Previously Presented) The method of claim 2, wherein using the distributed temperature sensing system comprises using an optical fiber to sense temperature in the wellbore.
8. (Currently Amended) A system usable with a well, comprising:
- an injection system to inject and to stop injection of fluid into a formation, the formation intersected by a wellbore having ~~[[a]]~~ an uphole section uphole of the formation and a formation section within the formation; ~~and~~
  - an observation system to observe temperature at least partially along the uphole section of the wellbore and at least partially along the formation section of the wellbore, wherein, after injection of fluid is stopped, the injection system re-starts injection of fluid into the formation in response to ~~based on~~ an observed peak in temperature in the ~~region of the wellbore proximate the uphole section of the wellbore side of the formation section, and~~
  - wherein, ~~once~~ while re-starting of injection of fluid is ~~re-started~~ occurring, the observation system ~~monitors~~ observes movement of the peaked temperature fluid as it moves from the uphole section and across ~~region proximate the uphole side of the formation and further along~~ the formation section of the wellbore; and
  - a processing system to determine an inflow profile of the formation based on the movement of the peaked temperature fluid observed while re-starting of the injection of fluid is occurring.

9. (Previously Presented) The system of claim 8, wherein the observation system comprises a distributed temperature sensing system.

10. (Previously Presented) The system of claim 9, wherein the distributed temperature sensing system comprises an optical fiber disposed in the wellbore to sense temperature at least partially along the uphole section of the wellbore and at least partially along the formation section of the wellbore.